

**IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION**

ATTICUS RESEARCH CORPORATION,	§	
	§	
Plaintiff,	§	
	§	
v.	§	CIVIL ACTION NO. H-11-1741
	§	
VMWARE, INC., <i>et al.</i> ,	§	
	§	
Defendants.	§	

MEMORANDUM OPINION AND ORDER CONSTRUING DISPUTED CLAIMS

Atticus Research Corp. sued VMware, Inc., Springsource Inc., and OSS Management Holdings, Inc., formerly known as Hyperic, Inc., alleging that computer software they manufactured or sold infringed U.S. Patent No. 6,567,937 (“the ’937 Patent”).¹ Atticus’s ’937 Patent, entitled “Technique For Remote State Notification And Software Fault Recovery,” relates to business computer systems that operate 24 hours a day. The ’937 Patent claims a method for remote detection of, and recovery from, certain types of computer-processing errors. The defendants counterclaimed, alleging invalidity and unenforceability.

This memorandum opinion addresses the parties’ contentions about how to construe disputed terms in the patent claims. The parties submitted a tutorial, briefs, and exhibits.² The court held a

¹ Atticus applied for the ’937 Patent on November 17, 1999. It issued on May 20, 2003.

² Atticus filed a claim-construction brief, (Docket Entry No. 49), the defendants responded, (Docket Entry No. 55), and Atticus replied, (Docket Entry No. 57). The parties submitted a joint claim-construction chart before the hearing. (Docket Entry No. 56). Atticus also submitted a tutorial and a list of proposed special masters and experts. (Docket Entry No. 58). The defendants submitted similar documents. (Docket Entries No. 59, 60).

hearing under *Markman v. Westview Instruments, Inc.*, 517 U.S. 370 (1996),³ at which counsel presented arguments supporting their competing claim constructions.

Based on the briefs, the record, the arguments of counsel, and the applicable law, this court construes the disputed terms as set out in the following table:

Disputed Term	Court's Construction
“first signal” (Claims 1, 14–16, 21–27)	A message indicating that a fault condition exists
“transmit[ting] a first signal to a remote device” (Claims 1, 14–16, 21–27)	Sending a message indicating that a fault condition exists to a device that is separate from the computer or computers running the monitoring program
“if the process is [in response to the process being] in a first state indicative of a fault condition” (Claims 1, 14–16, 21–27)	In response to a determination indicating a fault condition exists in the process
“first software fault recovery action” (Claims 1, 14–16, 21–27)	An action capable of correcting (but that does not have to succeed in correcting) a fault condition in a process
“second software fault recovery action” (Claims 1, 14–16, 21–27)	An action capable of diagnosing or correcting a fault condition in a process
“second signal received in response to the first signal / in response to” “second signal [being] received in response to a first signal” (Claims 1, 14–16, 21–27)	Instructions received in response to a message indicating that a fault condition exists from a device that is separate from the computer or computers running the monitoring program
“in accordance with [in response to] a second signal” (Claims 1, 14–16, 21–27)	As instructed by the response from a remote device
“within a specified time period” (Claims 1, 14–16, 21–27)	Within a period that is specified before the monitoring routine is run

³ The minute entry for the *Markman* hearing is Docket Entry No. 66.

“if the second signal is not received within a specified time period” (Claims 1, 14–16, 21–27)	If the second signal is not received within a period that is specified before the monitoring routine is run
“application program” (Claims 23–24, 27)	A program running on the monitored computer
“monitor program” (Claims 23–24, 27)	A program that monitors execution of the application program

The reasons are explained below.

I. Background

The '937 Patent offers an alternative to the burden and expense of having a trained person “on-duty 24-hours a day to monitor the execution of mission critical applications” in continuously operating computer systems. '937 Patent col. 1 ll. 32–33. There were preexisting approaches to eliminating the need to have a person on site to monitor a computer system’s continuous operation. The '937 Patent uses a software program to monitor computer software applications, determine if an error — known as a fault condition — exists, and, if a fault condition is detected, send an error message to a remote user who initiates the appropriate recovery action. *Id.*, col. 4 l. 62–col. 5 l. 4.

The '937 Patent has six independent claims: Claims 1, 16, 23, 25, 26, and 27. The independent claims share four common elements: (1) determining the state of a process executed on a computer system to detect whether there is a problem or “fault”; (2) sending a first signal to a remote device if a problem or “fault” with the process is detected; (3) initiating an action to fix the problem in accordance with a second signal that is received in response to the first signal; and (4) initiating a backup action if the second signal is not received within a specified period.

The claims relevant to the disputed terms are as follows:

1. A fault recovery method for a process executing on a computer system, comprising:

- determining a state of the process;
- transmitting a first signal to a remote device if the process is in a first state indicative of a fault condition;
- initiating a first software fault recover action to correct the fault condition in accordance with a second signal, the second signal received in response to the first signal; and
- initiating a second software fault recovery action if the second signal is not received within a specified time period.

....

- 16.** A program storage device, readable by a computer processor, comprising:
- instructions stored on the program storage device for causing the computer processor to determine a state of a process executing on the computer processor;
 - transmit a first signal to a remote device if the process is in a first state indicative of a fault condition;
 - initiate a first software fault recovery action to correct the fault condition in accordance with a second signal, the second signal received in response to the first signal; and
 - initiate a second software fault recovery action if the second signal is not received within a specified time period.

....

- 23.** A software fault recovery system, comprising:
- a computer processor; and
 - a storage device operatively coupled to the computer processor and adapted to store an application program and a monitor program, said monitor program having instructions for causing the computer processor to determine a state of a process executing on the computer processor, transmit a first signal to a remote device if the process is in a first state indicative of a fault condition, initiate a first software fault recovery action to correct the fault condition in accordance with a second signal, the second signal received in response to the first signal, and initiate a second software fault recovery if the second signal is not received within a specified time period.

....

- 25.** A fault recovery method for a process executing on a computer system, comprising:
- determining a state of the process;
 - automatically transmitting a first signal to a remote device in

response to the process being in a first state indicative of a fault condition;
automatically initiating a first software fault recovery action to correct the fault condition in response to a second signal, the second signal received in response to the first signal; and
automatically initiating a second software fault recovery action to correct the fault condition in response to the second signal not being received within a specified time period.

26. An article comprising a program storage device storing instructions readable by a processor to cause the processor to:

determine a state of a process executing on the processor;
automatically transmit a first signal to a remote device in response to the process being in a first state indicative of a fault condition;
automatically initiate a first software fault recovery action to correct the fault condition in response to a second signal, the second signal being received in response to the first signal; and
automatically initiate a second software fault recovery action to correct the fault condition in response to the second signal not being received within a specified time period.

27. A software fault recovery system, comprising:

a computer processor; and
a storage device operatively coupled to the computer processor and adapted to store an application program and a monitor program, said monitor program having instructions for causing the computer processor to determine a state of a process executing on the computer processor, automatically transmit a first signal to a remote device in response to the process being in a first state indicative of a fault condition, automatically initiate a first software fault recovery action to correct the fault condition in response to a second signal, the second signal being received in response to the first signal, and automatically initiate a second software fault recovery to correct the fault condition in response to the second signal not being received within a specified time period.

'937 Patent.

The parties initially disputed more terms than are currently at issue.⁴ In a joint claim-

⁴ The parties initially disputed the following terms in Claims 1, 14–16, and 21–27: “first signal,” “transmit[ing] a first signal to a remote device,” “if the process is [in response to the process being] in a first state indicative of a fault condition,” “first software fault recovery action,” “second software fault recovery action,” “correct a [the] fault condition,” “second signal [being] received in response to the first signal,” “in

construction chart submitted on June 8, 2012, the term “correct a [the] fault condition” was not listed as one needing construction. (Docket Entry No. 56). In an amended joint claim-construction chart filed on July 11, 2012, after the *Markman* hearing, the parties submitted updated proposed constructions for the disputed terms. In addition, the parties disagreed over whether any construction is necessary for the following terms:

- “transmit[ting] a first signal to a remote device”;
- “if the process is [in response to the process being] in a first state indicative of a fault condition”;
- “within a specified time period”;
- “if the second signal is not received within a specified time period”;
- “application program”; and
- “monitor program.”

(Docket Entry No. 73).

The disputed terms are construed below.

II. The Legal Standard

It is a “bedrock principle” that “‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d

accordance with [in response to] a second signal,” “within a specified time period,” and “if the second signal is not received within a specified time period.” In Claims 23, 24, and 27, the initially disputed terms were: “application program” and “monitor program.” In addition, the parties disputed whether construction was necessary for the following terms: “transmit[ting] a first signal to a remote device,” “if the process is [in response to the process being] in a first state indicative of a fault condition,” “within a specified time period,” “if the second signal is not received within a specified time period,” “application,” and “monitor program.” (Docket Entry No. 46).

1111, 1115 (Fed. Cir. 2004)). “[T]he construction of a patent, including terms of art within its claim, is exclusively within the province of the court.” *Markman*, 517 U.S. at 372. A court is to read the patent from the vantage of a person having ordinary skill in the art at the time of the invention. *Phillips*, 415 F.3d at 1313. Such a person “is deemed to read the words used in the patent documents with an understanding of their meaning in the field, and to have knowledge of any special meaning and usage in the field.” *Id.* (quoting *Multiform Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998)); *see also Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1319 (Fed. Cir. 2005) (cautioning courts not to interpret claim terms “in a vacuum” (quotation omitted)). Although claim terms are “generally given their ordinary and customary meaning,” this means that “the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention.” *Phillips*, 415 F.3d at 1312–13 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)).

When the ordinary meaning is readily apparent, claim construction “involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314. If this meaning is not readily apparent, the court reviews “the intrinsic evidence of record, *i.e.*, the patent itself, including the claims, the specification and, if in evidence, the prosecution history.” *Vitronics*, 90 F.3d at 1582; *see also Am. Piledriving Equip., Inc. v. Geoquip, Inc.*, 637 F.3d 1324, 1331 (Fed. Cir. 2011) (“[T]he role of a district court in construing claims is . . . to give meaning to the limitations actually contained in the claims, informed by the written description, the prosecution history if in evidence, and any relevant extrinsic evidence.”). The court first looks “to the words of the claims themselves, both asserted and nonasserted, to define the scope of the patented invention.” *Vitronics*, 90 F.3d at 1582. Claims must also be construed in context of surrounding claim language.

ACTV, Inc. v. Walt Disney Co., 346 F.3d 1082, 1088 (Fed. Cir. 2003) (“[T]he context of the surrounding words of the claim also must be considered in determining the ordinary and customary meaning of those terms.”); *accord Lexion Medical, LLC v. Northgate Techs., Inc.*, 641 F.3d 1352, 1356 (Fed. Cir. 2011).

The court also reviews the “specification to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning.” *Vitronics*, 90 F.3d at 1582. The Federal Circuit has repeatedly stated that “claims ‘must be read in view of the specification, of which they are part.’” *Phillips*, 415 F.3d at 1315 (quoting *Markman*, 52 F.3d 967, 979 (Fed. Cir. 1995)). The specification, a “concordance for the claims,” *id.* (quoting *Autogiro Co. of Am. v. United States*, 384 F.2d 391, 397–98 (Ct. Cl. 1967)), is the “best source for understanding a technical term,” *id.* (quoting *Multiform Desiccants*, 133 F.3d at 1478); *see also Metabolite Labs., Inc. v. Lab. Corp. of Am. Holdings*, 370 F.3d 1354, 1360 (Fed. Cir. 2004) (“In most cases, the best source for discerning the proper context of claim terms is the patent specification wherein the patent applicant describes the invention.”). When the specification “reveal[s] a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. . . . the inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316 (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)). “In other cases, the specification may reveal an intentional disclaimer, or disavowal, of claim scope by the inventor.” *Id.* (citing *Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343–44 (Fed. Cir. 2001)); *see also Thorner v. Sony Computer Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (explaining that claim construction may deviate from the ordinary and customary meaning of a disputed term only if (1) a patentee sets out a definition and acts as his own lexicographer, or (2) the patentee disavows the

full scope of a claim term either in the specification or during prosecution).

“‘The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.’” *Phillips*, 415 F.3d at 1316 (quoting *Renishaw PLC v. Marposs Società per Azioni*, 158 F.3d, 1243, 1250 (Fed. Cir. 1998)). “There is a fine line between construing the claims in light of the specification and improperly importing a limitation from the specification into the claims,” so courts must “capture the scope of the actual invention, rather than strictly limit the scope of claims to disclosed embodiments or allow the claim language to become divorced from what the specification conveys is the invention.” *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011).

“A court ‘should also consider the patent’s prosecution history, if it is in evidence.’” *Phillips*, 415 F.3d at 1317 (quoting *Markman*, 52 F.3d at 980). The prosecution history “can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.* (citing *Vitronics*, 90 F.3d at 1582–83); *see also Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376, 1381 (Fed. Cir. 2011) (“[T]he specification is the primary source for determining what was invented and what is covered by the claims, elucidated if needed by the prosecution history.”). The prosecution history includes “all express representations made by or on behalf of the applicant to the examiner to induce a patent grant, or . . . to reissue a patent. . . . includ[ing] amendments to the claims and arguments made to convince the examiner that the claimed invention meets the statutory requirements of novelty, utility, and nonobviousness.” *Standard Oil Co. v. Am. Cyanamid Co.*, 774 F.2d 448, 452 (Fed. Cir. 1985);

see also Sanofi-Aventis Deutschland GmbH v. Genentech, Inc., 473 F. App'x 885, 888 (Fed. Cir. 2012) (“We have held that an otherwise broadly defined term can be narrowed during prosecution through arguments made to distinguish prior art.” (citing *Phillips*, 415 F.3d at 1317)); *Phillips*, 415 F.3d at 1317 (“The prosecution history . . . consists of the complete record of the proceedings before the PTO and includes the prior art cited during the examination of the patent.”). “The doctrine of prosecution disclaimer is well established in Supreme Court precedent, precluding patentees from recapturing through claim interpretation specific meanings disclaimed during prosecution.” *Omega Eng'g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1323 (Fed. Cir. 2003); *see also SanDisk Corp. v. Memorex Prods., Inc.*, 415 F.3d 1278, 1286 (Fed. Cir. 2005). The doctrine applies even if the concessions were not necessary to make the invention patentable. *See Uship Intellectual Props., LLC v. United States*, 714 F.3d 1311, 1315 (Fed. Cir. 2013) (“We find no support for [the] proposition that prosecution disclaimer applies only when applicants attempt to overcome a claim rejection. Our cases broadly state that an applicant’s statements to the PTO characterizing its invention may give rise to a prosecution disclaimer.”); *cf. Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1583 (Fed. Cir. 1995) (“Estoppel extends beyond the basis of patentability Clear assertions made during prosecution in support of patentability, whether or not actually required to secure allowance of the claim, may also create an estoppel.” (citing *Tex. Instruments, Inc. v. U.S. Int’l Trade Comm’n*, 988 F.2d 1165 (Fed. Cir. 1993))).⁵ The doctrine does not apply “where the

⁵ “There is a clear line of distinction between using the contents of the prosecution history to reach an understanding about disputed claim language and the doctrine of prosecution history estoppel which ‘estops’ or limits later expansion of the protection accorded by the claim to the patent owner under the doctrine of equivalents when the claims have been purposefully amended or distinguished over relevant prior art to give up scope. . . . [T]he two uses of the prosecution history must not be confused.” *Biodex Corp. v. Loredan Biomedical, Inc.*, 946 F.2d 850, 862 (Fed. Cir. 1991) (citations and internal quotation marks omitted); *see also Ballard Med. Prods. v. Allegiance Healthcare Corp.*, 268 F.3d 1352, 1358–59 (Fed. Cir. 2001) (distinguishing the two); *Spectrum Int’l Corp. v. Sterilite Corp.*, 164 F.3d 1372, 1378 n.2 (Fed. Cir.

alleged disavowal of claim scope is ambiguous.” *Omega Eng’g*, 334 F.3d at 1324; *see also id.* at 1325 (“[W]e have required the alleged disavowing statements to be both so clear as to show reasonable clarity and deliberateness and so unmistakable as to be unambiguous evidence of disclaimer.” (citations omitted)). Only when “the patentee has unequivocally disavowed a certain meaning to obtain his patent [does] the doctrine of prosecution disclaimer attach[] and narrow[] the ordinary meaning of the claim congruent with the scope of the surrender.” *Id.* at 1324.

Courts may also “rely on extrinsic evidence, which ‘consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.’” *Phillips*, 415 F.3d at 1317 (quoting *Markman*, 52 F.3d at 980). Although extrinsic evidence “‘can shed useful light on the relevant art,’ it is ‘less significant than the intrinsic record in determining the legally operative meaning of claim language.’” *Zircon Corp. v. Stanley Black & Decker, Inc.*, 452 F. App’x 966, 972–73 (Fed. Cir. 2011) (quoting *Phillips*, 415 F.3d at 1317). Extrinsic evidence is “in general . . . less reliable than the patent and its prosecution history” because it is “not part of the patent” and was not created at the time of the patent’s prosecution; “extrinsic publications may not be written by or for skilled artisans”; and expert reports and testimony created at the time of litigation may “suffer from bias not present in intrinsic evidence.” *Phillips*, 415 F.3d

1998) (same). “Just as prosecution history estoppel may act to estop an equivalence argument under the doctrine of equivalents, positions taken before the PTO may bar an inconsistent position on claim construction” *Ballard Med. Prods.*, 268 F.3d at 1359 (quoting *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1457 (Fed. Cir. 1998) (alteration omitted)). When the accused infringer argues that the prosecution history results in a narrowing of a claim’s scope, there is no difference, and the Federal Circuit has refused to reverse based on references to estoppel. *See id.* at 1359 (“Because the substance of the district court’s analysis was sound, we disregard the fact that the court used the term ‘prosecution history estoppel’ in an unconventional manner.”); *Biodex Corp.*, 946 F.2d at 862–63 (observing that “Biodex is technically correct in asserting that the doctrine of prosecution history estoppel is ‘irrelevant’ to determination of literal claim scope” but upholding the district court because prosecution history is relevant to claim interpretation (citation omitted)).

at 1318. A court must exercise “sound discretion” in admitting and using extrinsic evidence. *Id.* at 1319; *see also Seattle Box Co. v. Indus. Crating & Packing, Inc.*, 731 F.2d 818, 826 (Fed. Cir. 1984) (“A trial judge has sole discretion to decide whether or not he needs, or even just desires, an expert’s assistance to understand a patent. We will not disturb that discretionary decision except in the clearest case.”).

“[E]xtrinsic evidence may be useful to the court, but it is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Phillips*, 415 F.3d at 1319. Although it is generally permissible for a court to consider extrinsic evidence, such evidence must not relegate the intrinsic evidence to a mere “check on the dictionary meaning of a claim term.” *Id.* at 1320 (noting that relying on dictionaries “too often” causes “the adoption of a dictionary definition entirely divorced from the context of the written description”). “The sequence of steps used by the judge in consulting various sources is not important; what matters is for the court to attach the appropriate weight to be assigned to those sources in light of the statutes and policies that inform patent law.” *Id.* at 1324 (citing *Vitronics*, 90 F.3d at 1582).

This legal framework is applied to the parties’ competing constructions of disputed terms.

III. Analysis

The parties dispute whether several terms require construction. According to Atticus, “no construction of [several] phrase[s] is necessary.” (Docket Entry No. 73). For some, Atticus proposes a construction “if one is required.” (*Id.*) For others, Atticus argues that the ordinary meaning suffices.

A district court’s obligation to construe claims does not extend to undisputed “terms with ordinary meanings, lest trial courts be inundated with requests to parse the meaning of every word

in the asserted claims.” *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1360 (Fed. Cir. 2008) (footnote omitted); *see also Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) (explaining that claim terms need be construed only “to the extent necessary to resolve the controversy”); *Silicon Graphics, Inc. v. ATI Techs., Inc.*, 607 F.3d 784, 798 (Fed. Cir. 2010) (“The testimony of both sides’ experts at trial indicates that [a] term was not fundamentally in dispute, thus, it was proper for the district court not to construe it.”); *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (explaining that claim construction “is not an obligatory exercise in redundancy”). For some terms, the subject of the parties’ dispute is not only the appropriate meaning, but whether the terms should be defined for the jury at all. But “[a] determination that a claim term ‘needs no construction’ or has the ‘plain and ordinary meaning’ may be inadequate when a term has more than one ‘ordinary’ meaning or when reliance on a term’s ‘ordinary’ meaning does not resolve the parties’ dispute.” *O2 Micro*, 521 F.3d at 1361.

“When the parties raise an actual dispute regarding the proper scope of [the patent] claims, the court, not the jury, must resolve that dispute.” *Id.* at 1360; *see also Kinetic Concepts, Inc. v. Blue Sky Med. Grp., Inc.*, 554 F.3d 1010, 1027 (Fed. Cir. 2009). The “fact that these disputed terms may have commonly understood meanings” does not mean that the court can avoid claim construction. *Attic Tent, Inc. v. Copeland*, 627 F. Supp. 2d 635, 640 (W.D.N.C. 2008). A court may determine that a claim term “‘needs no construction’ or has the ‘plain and ordinary meaning,’” but the court must nevertheless “‘resolve the parties’ dispute” about the claim terms. *O2 Micro*, 521 F.3d at 1361.

To the extent Atticus asks this court to avoid resolving disputed terms because those terms might be interpreted according to their ordinary meaning, the request is rejected. The disputes over

the claim terms are resolved. When appropriate, that resolution is based on the terms' ordinary meaning.

A. “Signal” Terms

1. “first signal”

In the joint claim-construction chart submitted before the *Markman* hearing, Atticus proposed construing “first signal” as “[a] signal that is sent to a remote device if the process is in a first state indicative of a fault condition.” (Docket Entry No. 56). VMware’s proposed construction was “[a]n error message.” (*Id.*) During the *Markman* hearing, the parties agreed that the term encompassed more than an “error message.” The parties agreed that “first signal” meant an indication that a fault condition exists. (Docket Entry No. 67, at 66–67). The parties proposed substantially similar revised constructions in their amended claim-construction chart. Atticus proposed “[a] communication indicating that a fault condition exists”; VMware proposed “[a] message indicating that a fault condition exists.” (Docket Entry No. 73). The dispute has narrowed to whether a “signal” is a “communication” or a “message” indicating a fault condition.

The specification consistently describes the “first signal” as an “alert message.” *See, e.g.*, ’937 Patent col. 3 ll. 55–61. The Abstract explains that once the system determines that the application has failed, the system “generates and transmits an alert message.” *Id.*, Abstract. Atticus offers no basis for its revised proposed construction other than its argument, presented at the *Markman* hearing, that a “signal” would be understood by one of ordinary skill in the art to mean “something other than a message.” (Docket Entry No. 67, at 67). During the *Markman* hearing, Atticus appeared to concede that whether “first signal” is construed to mean the initial “message” or “communication” is inconsequential “as long as” the term “connotes that something is sent, *some*

message signal is sent, once . . . there’s a fault.” (*Id.* (emphasis added)).

“Message” is consistent with both the claim language and other intrinsic evidence. “First signal” is construed as “a message indicating that a fault condition exists.”

2. “transmit[ting] a first signal to a remote device”

The parties’ dispute over construing “transmit[ting] a first signal to a remote device” centers on whether the “remote device” is: (1) remote from the computers running the software process that is being monitored; or (2) remote from the “monitoring program” or from the computers “performing the steps of the fault recovery method.” (*Id.* at 16–17). In the amended claim-construction chart, Atticus proposed “[s]ending a message that a fault condition exists to a device that is separate from the computer on which the monitored process is running.” VMware proposed “[s]ending a message that a fault condition exists to a device that is separate from the computer(s) running the monitoring program.” (Docket Entry No. 73).

The difference matters. VMware’s proposed construction requires that the first signal — the message that a fault condition exists — be sent to a device other than the computers performing the steps of the fault recovery method. Atticus’s proposed construction requires only that the remote device to which the first signal is sent be a device separate from the computer running the monitored program. VMware’s proposed construction requires that the device be remote from the *monitoring* computer; Atticus’s proposed construction requires that the device be remote from the *monitored* computer.

VMware argues that the claim language and other sources of interpretive guidance show that Atticus’s “frame of reference is wrong” because its proposed construction would allow the remote device to be the same device that is running the monitoring program. According to VMware, the

“remote device can’t be what’s monitoring the application. It has to be something remote from that.” (Docket Entry No. 67, at 69–70). Atticus argues that the remote device need be remote only from the computer on which the monitored process (but not a monitoring program) is running. VMware argues that this construction is inconsistent with the claim language, including the preamble of Claim 1, as well as the specification.

The preamble describes “[a] fault recovery method for a process executing on a computer system.” ’937 Patent col. 5 ll. 32–33. Neither this description nor the rest of Claim 1 makes clear what the claimed “remote device” is “remote” from. The claim language itself does not answer the question presented by the competing constructions. The specification, however, does answer the question. The specification describes the remote device as connected, via a communications link, to the computer or computers that comprise the software fault recovery system. ’937 Patent figs.1, 5. The specification also describes various means of transmitting the first signal from the computers performing the steps of the fault recovery method to a separate device remote from those computers, including by email, voice, facsimile, or pager. ’937 Patent col. 3 ll. 5–14; 53–67. One of ordinary skill in the art, reading the claim terms in light of the intrinsic record, would understand the terms to mean that the first signal is transmitted to a device remote from the computer or computers running the monitoring programs, not separate from the computer running the monitored program.

The term “transmit[ting] a first signal to a remote device” is construed as “sending a message indicating that a fault condition exists to a device that is separate from the computer or computers running the monitoring program.”

3. “if the process is [in response to the process being] in a first state indicative of a fault condition”

This term is construed according to the parties’ agreement: “in response to a determination

indicating a fault condition exists in the process.” (Docket Entry No. 73).

4. “first software fault recovery action”

Atticus contends that this term should be broadly construed to mean an action that is initiated for the purpose of correcting the software fault condition. VMware argues that the proper construction is an action that is capable of correcting the software fault condition, even if the correction does not succeed. Before the *Markman* hearing, Atticus proposed a construction of “[a]n action that is initiated to correct the software fault condition. VMware proposed “[a]n action capable of correcting a fault condition in a process.” (Docket Entry No. 56). During the *Markman* hearing, Atticus objected to “capable of correcting” as “too limiting because it has the connotation of must succeed” in correcting the fault. (Docket Entry No. 67, at 28–29). VMware objected to “initiated for” this purpose as overly broad because it could cover actions that had no ability to correct the fault. (*Id.*) In the amended claim-construction chart, Atticus proposed a revision, construing “first software fault recover action” as “[a]n action that is initiated for the purpose of correcting the software fault condition.” VMware proposed “[a]n action capable of correcting (but does not have to succeed in correcting) a fault condition in a process.” (Docket Entry No. 73).

Both proposals eliminate the problematic connotation that an action “capable” of correcting the problem be one that “must succeed.” But Atticus’s proposed construction also eliminates the equally necessary connotation that the action taken be one that “can succeed.” Even though Atticus’s revised proposal states that the action must have been taken for the purpose of correcting the fault condition, the revision would cover any action initiated for that purpose, no matter how attenuated that action is from one that is capable of doing so. Atticus has not shown that one of ordinary skill in the art would have understood the term “first software fault recovery action” to have

such a broad meaning. The specification and file history explain that the “first software fault recovery action” must be capable of correcting the fault condition detected in the process, even if the action is not successful in doing so.

The actions described in Table 1 of the specification include restarting an application, restarting the host computer, or restarting both. *See* ’937 Patent col. 3 ll. 20–35. The specification distinguishes such “fault recovery actions” from a mere “response message.” *See id.*, col. 4, ll. 21–23; 41–44. During the prosecution of the ’937 Patent, the applicants distinguished a prior art reference disclosing “remotely initiating diagnostic routines” as “not teach[ing] or even suggest[ing] initiating a fault recovery software action to correct a fault condition.” (Docket Entry No. 49-1, ’937 Patent file history at A000070, Nov. 7, 2002 Reply to Office Action Dated July 30, 2002 at 6; *see also id.* at 7 (“[U.S. Patent No. 6,145,101 to] Pike teaches that the system manager may initiate diagnostic routines on the computer 3, not initiate a fault recovery action to correct a fault condition.”)). In response to the examiner’s rejection, the applicants amended Claim 1 to add that the first signal transmitted is “indicative of a fault condition” and that a first software fault recovery action is taken “to correct the fault condition.” (*See id.*, ’937 Patent file history at A000074, Claim Amendments at i, Amended Claim 1 (emphasis omitted); *see also id.*, ’937 Patent file history at A000069, Nov. 7, 2002 Reply to Office Action Dated July 30, 2002 at 5). But a diagnostic routine is also initiated “for the purpose of” correcting an identified problem. “For the purpose of” is broad enough to encompass any step intended to lead to correcting a fault condition, even if that step itself does not have the capability of doing so. This breadth is inconsistent with the specification and the patent prosecution history. One of ordinary skill in the art would have understood that the “first software fault recovery action” must not merely be for the purpose of correcting the software fault

condition,” but must also be capable of doing so, although it need not actually succeed.

The term “first software fault recovery action” is construed to mean “an action capable of correcting (but that does not have to succeed in correcting) a fault condition in a process.”

5. “second software fault recovery action”

The phrase “second software fault recovery action” is obviously identical to the phrase “first software fault recovery action” construed above except that the word “second” is used instead of “first. The parties agree, however, that in this context, the difference between a “first software recovery action” and a “second software recovery action” goes beyond timing or sequence.

Before the *Markman* hearing, Atticus proposed a construction of “[a]n action that is initiated if the second signal is not received within a specified period of time.” VMware proposed “[a]n action capable of correcting *or diagnosing* a fault condition in a process.” (Docket Entry No. 56 (emphasis added)). In the revised claim-construction chart, Atticus proposed “[a]n action that is initiated to bring attention to the fault condition if the second signal is not received within a specified period of time.” (Docket Entry No. 73). Atticus argues that this term is broader than the term “first software recovery action” in that it should include actions that bring attention to the fault condition, as opposed to having the purpose or capability of correcting it. Atticus relies on claim differentiation, arguing that the independent claim says nothing about capability for fault correction. Instead, a dependent claim states that the second action must be capable of correcting the identified fault. In the third clause of Claim 1, the phrase “to correct the fault condition” followed the term “first software fault recovery action,” but in the fourth clause of Claim 1, the phrase “to correct the fault condition” did not follow “a second software fault recovery action.” (Docket Entry No. 49, at 12–13). In dependent Claim 15, the phrase “to correct the fault condition” follows the phrase

“second software fault recovery action.”

VMware argues that construing the term as broadly as Atticus advocates would be inconsistent with the claims and prosecution history. VMware proposed “[a]n action capable of correcting a fault condition in a process.” (*Id.*)

Under the doctrine of claim differentiation, “the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Phillips*, 415 F.3d at 1315. “[W]here the limitation that is sought to be ‘read into’ an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest.” *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004). During prosecution, Claim 1 was amended to insert the phrase “to correct the fault condition” immediately following the phrase “first software fault recovery action,” but not after the phrase “second software fault recovery action.” (Docket Entry No. 49-1, ’937 Patent file history at A000074, Claim Amendments at i, Amended Claim 1 (emphasis omitted)). Instead of adding the phrase “to correct the fault condition” after “second software fault recovery action” in Claim 1, the phrase “to correct the fault condition” was included in a new, dependent application Claim 22 (issued as Claim 15), which further defined the “second software fault recovery action” as follows: “22. (New) The method of Claim 1, wherein the second software fault recovery action comprises an action to correct the fault condition.” (*Id.* at A000066, Nov. 7, 2002 Reply to Office Action Dated July 30, 2002 at 2). Atticus argues that VMware seeks to read into independent Claim 1 the limitation from dependent Claim 15 that the second software fault recovery action is one capable of correcting the fault condition.

Atticus’s proposed construction, however, appears to disregard the need to differentiate

between two other terms. One is “first signal,” construed as “a message indicating that a fault condition exists.” The other is “fault recovery action,” which must mean something other than “a message indicating that a fault condition exists.” Whether the “action” is a “first software recovery action,” construed to mean “an action capable of correcting” the condition, or a “second software recovery action,” the “action” must do more than bring attention to the fault condition. Otherwise, the “action” would include not only diagnostic steps leading toward, but not in themselves capable of, correcting a fault condition, but also messages indicating (bringing attention to) the existence of a fault condition — in other words, a “signal.” Atticus’s proposed construction of “second software fault recovery action” does not adequately differentiate between an “action” and a “signal.”

VMware’s argument that the prosecution history requires limiting “second software fault recovery action” to actions capable of correcting a fault condition, as opposed to including steps capable of diagnosing the fault condition, is less persuasive. During the ’937 Patent prosecution, the inventors distinguished the Pike prior art reference, U.S. Patent No. 6,145,101, which the examiner cited in a nonfinal rejection, on the ground that “a diagnostic routine does not constitute a software fault recovery action to correct a fault condition.” (Docket Entry No. 49-1, ’937 Patent file history at A000070, Nov. 7, 2002 Reply to Office Action Dated July 30, 2002 at 6). But the disclaimer appears to apply to only the “first software fault recovery action,” not the “second software fault recovery action.” *Compare* ’937 Patent col. 5 ll. 38–41 (“initiating a first software fault recovery action to correct the fault condition . . .”), *with* col. 5 ll. 42–43 (“initiating a second software fault recovery action if the second signal is not received within a specified time period”). A second software fault recovery action appears to include not only steps capable of correcting the fault condition but also actions that, while not in themselves capable of correcting the fault

condition, do more than call attention to (“signal”) the existence of the condition. One of ordinary skill in the art would have understood the second software fault recovery action to include diagnostic steps as well as steps capable of correcting the fault condition.

The term “second software recovery action” is construed as “an action capable of diagnosing or correcting a fault condition in a process.”

**6. “second signal received in response to the first signal / in response to”;
“second signal [being] received in response to a first signal”**

Atticus’s proposed construction is “[a] signal that will cause initiation of a first software fault recovery action and that is received, without modification, from the remote device in direct response to the first signal.” (Docket Entry No. 73). VMware originally proposed to construe the terms to mean “[i]nstructions from a remote device received in response to an error message.” (Docket Entry No. 56). After the *Markman* hearing, VMware proposed to construe the terms as: “[i]nstructions received in response to [a message indicating that a fault condition exists] from a device that is separate from the computer(s) running the monitoring program.” (Docket Entry No. 73). During the *Markman* hearing, Atticus argued that the second signal was not required to include instructions on how the first software fault recovery action should correct the fault condition. Instead, according to Atticus, the second signal is what initiates the response of the first software fault recovery action. In other words, the computer running the monitored process may already know what the first software fault recovery action is and simply needs to receive a second signal instructing it to “initiate” that “first software fault recovery action.” (Docket Entry No. 67, at 24). In response, VMware raised arguments similar to those it raised earlier in construing the term “remote,” asserting that the instructions must come from a device that is separate from the computer or computers running the monitoring program. (*Id.* at 83–84).

Both parties' proposed constructions support the interpretation that the "second signal" originates from a "remote device." The specification explains that "[i]n contrast to prior art techniques, the fault recovery system of the present invention allows users to monitor mission-critical applications 24-hour[s] a day without incurring the cost of having a dedicated attendant." '937 Patent col. 4 ll. 62–66. The issue is whether the word "instructions" describes a message sent by the remote device that specifies precisely what action should be taken to correct the detected fault condition.

Atticus objected to the term "instructions" as overly limiting in that "the computer that's being monitored already knows what to do based upon the fact that it's receiving the signal." (Docket Entry No. 67, at 24). Atticus argued that "'instruction' implies that it has to include exactly what is going to be done in order to address the issue, whereas that may not necessarily be required." (*Id.*) As VMware explained, however, this argument fails to account for the fact that, to a person of ordinary skill in the art, a "signal" in the context of communicating to a computer means an "instruction" because "computers work by interpreting instructions." (*Id.* at 86). The word "instructions" does not connote a precise or detailed set of directives on the steps needed to correct the detected fault condition. The word "instructions" does not impose the requirements Atticus argues against.

Atticus's proposed construction is also problematic because it would exclude embodiments described in the specification. Those embodiments include where "the alert and response messages may be transmitted via different modes (e.g., the alert message may be transmitted by electronic mail and the response message may be transmitted by telephone lines using an interactive voice response system)." '937 Patent col. 1 ll. 57–63. The specification describes an embodiment in which "the

response message is received via e-mail, [and] communication routine 104 may parse the received e-mail message to determine the selected fault recovery action.” *Id.*, col. 4 ll. 35–38. The construction Atticus proposed would exclude embodiments in the specification that provide for modification of the responsive, second signal.

The terms “second signal received in response to the first signal / in response to” and “second signal [being] received in response to a first signal” are construed to mean “instructions received in response to a message indicating that a fault condition exists from a device that is separate from the computer or computers running the monitoring program.”

7. “in accordance with [in response to] a second signal”

The ’937 Patent describes its purpose as allowing remote correction of a software fault condition without round-the-clock, onsite monitoring of the software application. *See id.*, Background. The specification explains that “[i]n contrast to prior art techniques, the fault recovery system of the present invention allows users to monitor mission-critical applications 24-hours a day without incurring the cost of having a dedicated attendant.” *Id.*, col. 4 ll. 62–66. As the specification also explains, the “second signal” is the signal returned by the recipient of the “first signal,” via the “remote device,” that instructs the fault recovery system on the action to take to correct the detected fault. *See id.*, col. 4, ll. 1–44.

Atticus proposed that the phrase “in accordance with a second signal” be construed to mean “a second signal will cause initiation of the first software fault recovery action to correct the fault condition.” Atticus argues that this construction is supported by the third clause of Claim 1, which states: “initiating a first software fault recovery action to correct the fault condition in accordance with a second signal, the second signal received in response to the first signal.” (Docket Entry No.

49, at 9). VMware proposed to construe the phrase “in accordance with a second signal” to mean “[a]s instructed by the response from a remote device.” (Docket Entry No. 73). Atticus’s primary objection to this construction appears to echo its concerns that “instructions” are overly limiting because “the computer running the monitored process may already know what the first software fault recovery action is.” (*Id.*) But a person skilled in the art would understand that the word “signal” means an “instruction” by one computer to another to perform some action. Illustrating this point, Atticus itself argues that “instructed” is too broad because the computer running the monitored process may “just need to receive the second signal *instructing* it to ‘initiate’ that ‘first software fault recovery action.’” (*Id.* (emphasis added)).

The term “in accordance with [in response to] a second signal” is construed to mean “as instructed by the response from a remote device.”

8. “within a specified time period”

Atticus argues that no construction of this term is needed. VMware argues that the term should be construed to mean “[w]ithin a period of time that is determined before the monitoring routine is run.” (*Id.*) VMware argues that, based on basic programming logic, “[f]or the system to know if the second signal has been received within a specified time period, that time period must be known in advance. Where the specification makes it clear that an element is a necessary part of the claimed steps, it is proper to include such elements in the claim’s construction.” (Docket Entry No. 55, at 19 (citing *Honeywell Int’l Inc. v. Universal Avionics Sys. Corp.*, 488 F.3d 982, 990 (Fed. Cir. 2007) (construing “look ahead distance” to include a time limitation since “time is inherent in the calculation of ‘look ahead distance,’” as shown by the specification))).

Atticus’s objection appears to be that the terms “determined” or “predetermined” do not

appear in the claims or specification. The claims and the specification use “specified,” not “determined” or “predetermined”:

If a response to the alert message sent in block 206 is not received by monitor routine 102 within a specified time period (the “no” prong of diamond 208), that fault recovery action designated as the default action during the acts of blocks 200 and 304 is initiated (block 210). If a response to the alert message is received by monitor routine 102 within the specified time period (the “yes” prong of diamond 208), that fault recovery action specified in the received message (hereinafter the response message) is initiated (block 212). It will be recognized that the amount of time to wait for a response message before initiating the default fault recovery action is dependent upon the application being monitored. For example, if application 112 is a database for tracking ongoing financial transactions, the specified time period may be 5 to 10 minutes. Similarly, if application 112 is part of a shipping companies freight tracking system, the specified delay may be 10 to 15 minutes. Further, the specified time period may vary depending upon the time of day and/or day of week — shorter delay times designated for peak work hours, longer delay times for off-peak hours.

’937 Patent col. 4 ll. 1–20.

The parties do not appear to dispute that a person skilled in the art would understand “a specified time period” in this context to require that the period be specified *before* the monitoring routine is run. (*See, e.g.*, Docket Entry No. 67, at 90 (“THE COURT: It’s got to be done prior to the signal or message, or whatever you’re calling it, occurring, right? MR. QUISENBERRY: Yes. If that’s the time period that we’re talking about, then we don’t have a problem with that.”)). These concerns are addressed by construing the term “within a specified time period” to mean “within a period that is specified before the monitoring routine is run.”

9. “if the second signal is not received within a specified time period”

Atticus argues that while no construction of this term is necessary, an appropriate construction is “if the second signal is not received in response to the first signal within a specified period of time.” VMware proposed construing the term to mean “[i]n response to a determination

that the instructions from the remote device have not been received [within a period of time that is specified before the monitoring routine is run.]” (Docket Entry No. 73). During the *Markman* hearing, the parties clarified that their dispute centered largely on the meaning of “specified time period.” (*See, e.g.*, Docket Entry No. 67, at 32). In light of the construction of “specified time period,” the term “if the second signal is not received within a specified time period” is construed to mean “if the second signal is not received within a period that is specified before the monitoring routine is run.”

B. “Program” Terms

1. “application program”

Atticus argues that no construction is needed but that an appropriate construction is “a program that includes the process to be monitored.” VMware proposes construing the term to mean “[a] program running on the monitored computer.” (Docket Entry No. 73). During the *Markman* hearing, VMware argued that “because of the remote issue,” the term needs construction “to be clear where things are occurring.” VMware conceded that Atticus’s proposed construction would be correct if it made clear that the “process to be monitored” is on the monitored computer. (Docket Entry No. 67, at 87).

The court agrees that construction of the term is necessary. Atticus’s proposed construction of “application program” as a “process to be monitored” does not require that the program itself be monitored. The specification consistently refers to the application program itself as being monitored, as opposed to a part or process of the program. *See, e.g.*, ’937 Patent col. 2, ll. 45–47 (“[M]onitor routine 102 may be configured to monitor one or more application programs.”). The specification refers to “a process executing on a computer process that is monitored,” and to

application 112 as running on host computer 106, which also stores the application or applications being monitored. *Id.*, col. 2 ll. 26–29, 48–49, col. 4 ll. 10–13. Neither monitor computer 502 nor remote device 108 is monitored by the invention’s monitor routine. *See id.*, figs.1, 5. A person of ordinary skill in the art would understand the different functions performed by the respective computers and remote device in the claimed system, which are reflected in VMware’s construction. The term “application program” is construed to mean “a program running on the monitored computer.”

2. “monitor program”

Atticus argues that no construction of this term is necessary but offers the following if needed:

For Claim 23: “a program that can be stored on a storage device and includes instructions for causing the computer processor to determine a state of a process executing on the computer processor, transmit a first signal to a remote device if the process is in a first state indicative of a fault condition, initiate a first software fault recovery action to correct the fault condition in accordance with a second signal, the second signal received in response to the first signal, and initiate a second software fault recovery if the second signal is not received within a specified time period.”

For Claim 27: “a program that can be stored on a storage device and includes instructions for causing the computer processor to determine a state of a process executing on the computer processor, automatically transmit a first signal to a remote device in response to the process being in a first state indicative of a fault condition, automatically initiate a first software fault recovery action to correct the fault condition in response to a second signal, the second signal being received in response to the first signal, and automatically initiate a second software fault recovery to correct the fault condition in response to the second signal not being received within a specified time period.”

(Docket Entry No. 73). VMware argues that the term should be construed to mean “[a] program that monitors execution of the application program.” (*Id.*)

The court agrees with VMware. The parties’ divergent proposed constructions weigh in

favor of construction. Atticus’s proposed construction, however, largely repeats the claim language and is not helpful to the factfinder. *See, e.g., Endotach LLC v. Cook Med. Inc.*, 2013 WL 1500827, at *13 (S.D. Ind. Apr. 10, 2013) (rejecting a proposed construction because it “merely repeats what the patentee said with more words and is not helpful”); *Network Appliance Inc. v. Sun Microsystems Inc.*, 2008 WL 4193049, at *25 (N.D. Cal. Sept. 10, 2008) (“NetApp’s proposed construction simply repeats much of the language in the disputed claim term, which is not particularly helpful to the jury.”). The term “monitor program” is construed to mean “a program that monitors execution of the application program,” consistent with the claim and specification language.

IV. Conclusion

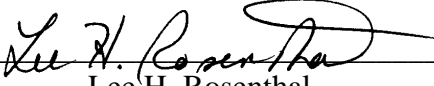
The disputed terms of the '937 Patent are construed as follows:

Disputed Term	Court’s Construction
“first signal” (Claims 1, 14–16, 21–27)	A message indicating that a fault condition exists
“transmit[ting] a first signal to a remote device” (Claims 1, 14–16, 21–27)	Sending a message indicating that a fault condition exists to a device that is separate from the computer or computers running the monitoring program
“if the process is [in response to the process being] in a first state indicative of a fault condition” (Claims 1, 14–16, 21–27)	In response to a determination indicating a fault condition exists in the process
“first software fault recovery action” (Claims 1, 14–16, 21–27)	An action capable of correcting (but that does not have to succeed in correcting) a fault condition in a process
“second software fault recovery action” (Claims 1, 14–16, 21–27)	An action capable of diagnosing or correcting a fault condition in a process

“second signal received in response to the first signal / in response to” “second signal [being] received in response to a first signal” (Claims 1, 14–16, 21–27)	Instructions received in response to a message indicating that a fault condition exists from a device that is separate from the computer or computers running the monitoring program
“in accordance with [in response to] a second signal” (Claims 1, 14–16, 21–27)	As instructed by the response from a remote device
“within a specified time period” (Claims 1, 14–16, 21–27)	Within a period that is specified before the monitoring routine is run
“if the second signal is not received within a specified time period” (Claims 1, 14–16, 21–27)	If the second signal is not received within a period that is specified before the monitoring routine is run
“application program” (Claims 23–24, 27)	A program running on the monitored computer
“monitor program” (Claims 23–24, 27)	A program that monitors execution of the application program

The docket call scheduled for **August 2, 2013 at 9:00 a.m.** in Courtroom 11-B will be a status and scheduling conference.

SIGNED on July 30, 2013, at Houston, Texas.



Lee H. Rosenthal
United States District Judge